



















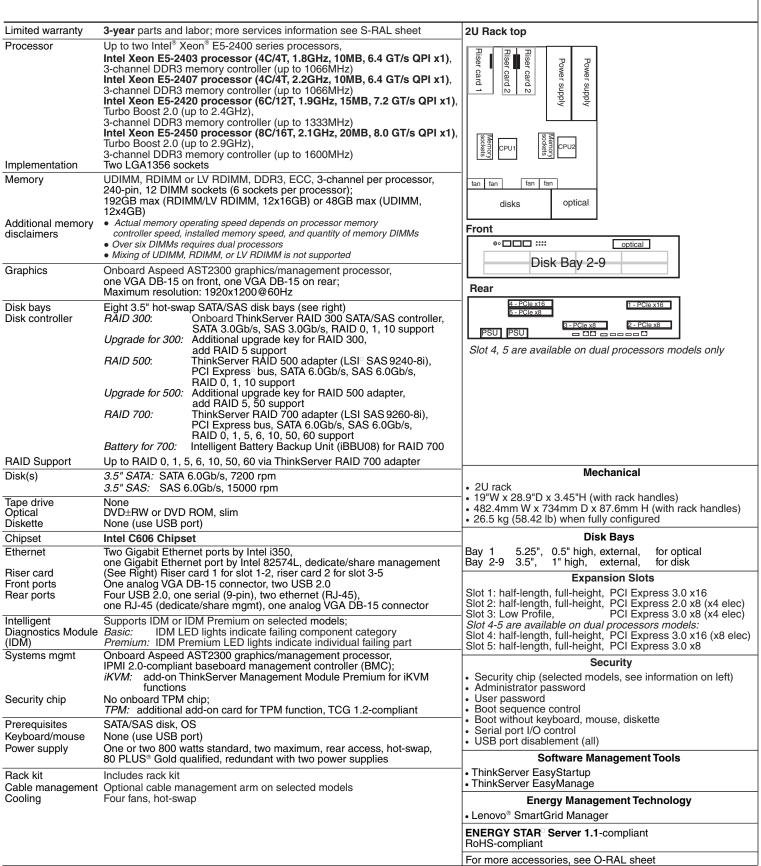




^{*} Some models in pictures above contain optional add-in ethernet adapter or RAID adapter; some RD430 with 2.5" disk bay models may come with 8 disk bays

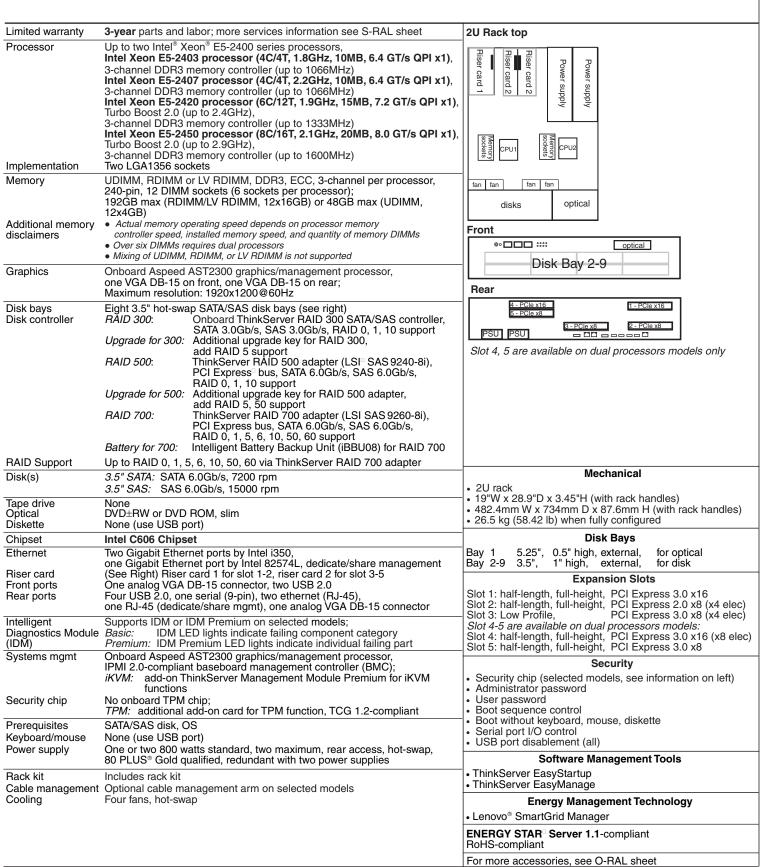
ThinkServer RD430 with eight 3.5" Disk Bays (3064) - TopSeller

Type-		Memory	Memory	Pre-conf	Disk		Disk	Disk	SATA	Intelligent		System	Cable	Preload	PSU
model	Processor(s)	(MHz/type)	DIMMs	RAID	controller	Disk(s)	bays	type	optical	Diagnostics	TPM	mgmt	mgmt	os	qty
3064-G2U	1xE5-2407	1333MHz RDIMM	1x4GB	No	300	No	8xHS	SATA/SAS	DVD±RW	Basic	TPM	IPMI	No	No	1
3064-G3U	1xE5-2403	1333MHz RDIMM	1x4GB	No	300	No	8xHS	SATA/SAS	DVD±RW	Basic	TPM	IPMI	No	No	1
3064-G4U	1xE5-2420	1333MHz RDIMM	1x8GB	No	300	No	8xHS	SATA/SAS	DVD±RW	Premium	TPM	IPMI	No	No	1
3064-G5U	1xE5-2450	1333MHz RDIMM	1x8GB	No	500+Upgrade	No	8xHS	SATA/SAS	DVD±RW	Premium	TPM	iKVM	No	No	2
3064-G6U	2xE5-2420	1333MHz RDIMM	2x16GB	No	700+Battery	No	8xHS	SATA/SAS	$DVD \pm RW$	Premium	TPM	iKVM	No	No	2

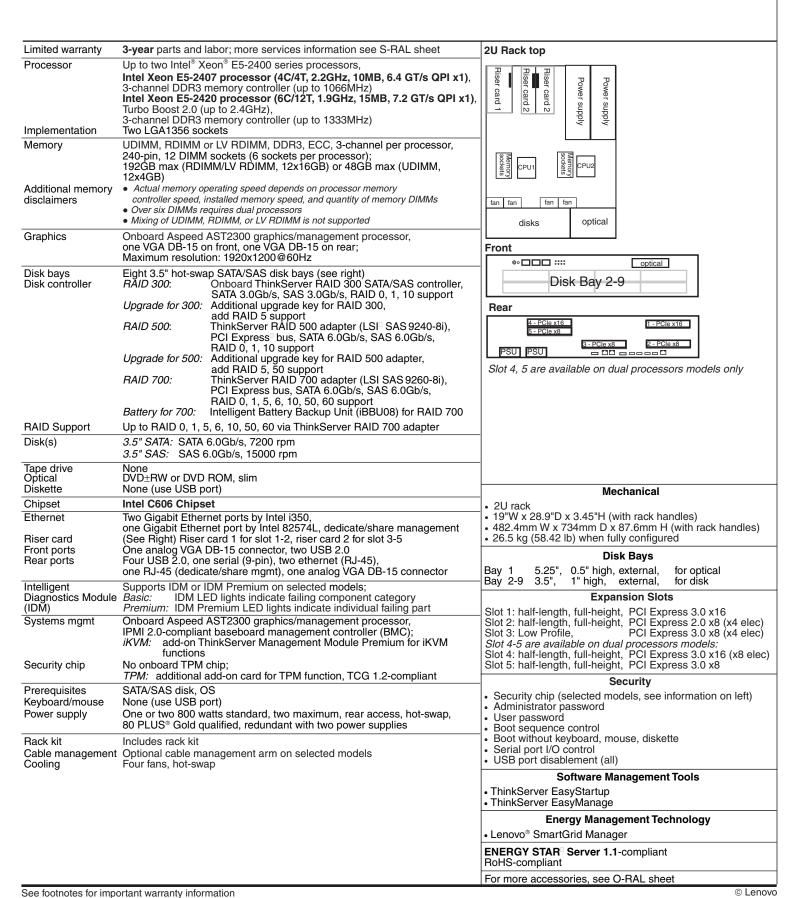


ThinkServer RD430 with eight 3.5" Disk Bays (3065)

Type-		Memory	Memory	Pre-conf	Disk		Disk	Disk	SATA	Intelligent		System	Cable	Preload	PSU
model	Processor(s)	(MHz/type)	DIMMs	RAID	controller	Disk(s)	bays	type	optical	Diagnostics	TPM	mgmt	mgmt	os	qty
3065-B1U	1xE5-2403	1333MHz RDIMM	1x4GB	No	300	No	8xHS	SATA/SAS	DVD±RW	Basic	TPM	IPMI	No	No	1
3065-B2U	1xE5-2407	1333MHz RDIMM	1x4GB	No	300	No	8xHS	SATA/SAS	DVD±RW	Basic	TPM	IPMI	No	No	1
3065-B3U	1xE5-2420	1333MHz RDIMM	1x8GB	No	500+Upgrade	No	8xHS	SATA/SAS	DVD±RW	Premium	TPM	iKVM	No	No	2
3065-B4U	1xE5-2450	1333MHz RDIMM	1x16GB	No	700+Battery	No	8xHS	SATA/SAS	DVD±RW	Premium	TPM	iKVM	No	No	2
3065-B5U	1xE5-2420	1333MHz RDIMM	1x8GB	No	700+Battery	No	8xHS	SATA/SAS	$DVD {\pm} RW$	Premium	TPM	iKVM	No	No	2



Type-		Memory	Memory	Pre-conf	Disk		Disk	SATA	Intelligent		System	Cable	Preload	PSU
model	Processor(s)	(MHz/type)	DIMMs	RAID	controller	Disk(s)	type	optical	Diagnostics	TPM	mgmt	mgmt	os	qty
3065-A3U	1xE5-2420	1600MHz RDIMM	1x8GB	No	300		SATA/SAS	DVD±RW	Premium	TPM	iKVM	No	No	1
3065-A4U	1xE5-2407	1600MHz RDIMM	4x8GB	No	700+Battery	3x500GB 3.5" SATA	SATA/SAS	DVD±RW	Premium	TPM	iKVM	No	No	2
3065-A5U	1xE5-2420	1600MHz RDIMM	6x8GB	No	700+Battery	3x300GB 3.5" SAS	SATA/SAS	$DVD {\pm} RW$	Premium	TPM	iKVM	No	No	2



US model(s) announced September 11, 2012

Type-		Memory	Memory	Pre-conf	Disk		Disk	Disk	SATA	Intelligent		System	Cable	Preload	PSU
model	Processor(s)	(MHz/type)	DIMMs	RAID	controller	Disk(s)	bays	type	optical	Diagnostics	TPM	mgmt	mgmt	os	qty
3065-K1L	J 1xE5-2450	1600MHz RDIMM	1x8GB	No	300	No	8xHS	SATA/SAS	DVD±RW	Premium	TPM	iKVM	No	No	1

Limited warranty	3-year parts and labor; more services information see S-RD sheet	2U Rack top
Processor	Up to two Intel® Xeon® E5-2400 series processors, Intel Xeon E5-2450 processor (8C/16T, 2.1GHz, 20MB, 8.0 GT/s QPI x1), Turbo Boost 2.0 (up to 2.9GHz), 3-channel DDR3 memory controller (up to 1600MHz) Two LGA1356 sockets	Power supply Power supply Riser card 2 Riser card 2
Implementation Memory	UDIMM, RDIMM or LV RDIMM, DDR3, ECC, 3-channel per processor,	Viddr Addr Addr Addr Addr Addr Addr Addr
Memory	240-pin, 12 DIMM sockets (6 sockets per processor); 192GB max (RDIMM/LV RDIMM, 12x16GB) or 48GB max (UDIMM, 12x4GB)	
Additional memory disclaimers	 Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs Over six DIMMs requires dual processors Mixing of UDIMM, RDIMM, or LV RDIMM is not supported 	Sometric CPU1 Socket's CPU1 Fan f
Graphics	Onboard Aspeed AST2300 graphics/management processor, one VGA DB-15 on front, one VGA DB-15 on rear; Maximum resolution: 1920x1200@60Hz	disks optical
Disk bays Disk controller	Eight 3.5" hot-swap SATA/SAS disk bays (see right) RAID 300: Onboard ThinkServer RAID 300 SATA/SAS controller, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1, 10 support Upgrade for 300: Additional upgrade key for RAID 300,	Front
	add RAID 5 support RAID 500: ThinkServer RAID 500 adapter (LSI SAS 9240-8i), PCI Express bus, SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 10 support	Rear 4 - PCle x16 1 - PCle x16
	Upgrade for 500: Additional upgrade key for RAID 500 adapter.	5 - PCle x8 3 - PCle x8 2 - PCle x8
	add RAID 5, 50 support RAID 700: ThinkServer RAID 700 adapter (LSI SAS 9260-8i), PCI Express bus, SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 5, 6, 10, 50, 60 support	Slot 4, 5 are available on dual processors models only
DAID Commant	Battery for 700: Intelligent Battery Backup Unit (iBBU08) for RAID 700	
RAID Support Disk(s)	Up to RAID 0, 1, 5, 6, 10, 50, 60 via ThinkServer RAID 700 adapter 3.5" SATA: SATA 6.0Gb/s, 7200 rpm	-
	3.5" SAS: SAS 6.0Gb/s, 15000 rpm	
Tape drive Optical Diskette	None DVD±RW or DVD ROM, slim None (use USB port)	
Chipset	Intel C606 Chipset	Mechanical
Ethernet Riser card Front ports Rear ports	Two Gigabit Ethernet ports by Intel i350, one Gigabit Ethernet port by Intel 82574L, dedicate/share management (See Right) Riser card 1 for slot 1-2, riser card 2 for slot 3-5 One analog VGA DB-15 connector, two USB 2.0 Four USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector	 2U rack 19"W x 28.9"D x 3.45"H (with rack handles) 482.4mm W x 734mm D x 87.6mm H (with rack handles) 26.5 kg (58.42 lb) when fully configured
Intelligent Diagnostics Module (IDM)	Supports IDM or IDM Premium on selected models;	Disk Bays Bay 1 5.25", 0.5" high, external, for optical Bay 2-9 3.5", 1" high, external, for disk
Systems mgmt	Onboard Aspeed AST2300 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for iKVM functions	Expansion Slots Slot 1: half-length, full-height, PCI Express 3.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x8 (x4 elec) Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec)
Security chip	No onboard TPM chip; TPM: additional add-on card for TPM function, TCG 1.2-compliant	Slot 4-5 are available on dual processors models: Slot 4: half-length, full-height, PCI Express 3.0 x16 (x8 elec) Slot 5: half-length, full-height, PCI Express 3.0 x8
Prerequisites Keyboard/mouse	SATA/SAS disk, OS None (use USB port)	Security
Power supply	One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS® Gold qualified, redundant with two power supplies	Security chip (selected models, see information on left) Administrator password
Rack kit Cable management Cooling	Includes rack kit Optional cable management arm on selected models Four fans, hot-swap	User password Boot sequence control Boot without keyboard, mouse, diskette Serial port I/O control USB port disablement (all)
		Software Management Tools ThinkServer EasyStartup ThinkServer EasyManage
		Energy Management Technology • Lenovo® SmartGrid Manager
		ENERGY STAR Server 1.1-compliant RoHS-compliant
		For more accessories, see O-RAL sheet

Tillikoerver in	Disk Days (3037) - Topoellei	
Type- model Processor	Memory Memory Pre-conf Disk Disk (s) (MHz/type) DIMMs RAID controller Disk(s) bays	Disk SATA Intelligent System Cable Preload PSU type optical Diagnostics TPM mgmt mgmt OS qty
	() () ()	SATA/SAS No No TPM IPMI No No 1
		SATA/SAS No No TPM IPMI No No 1
		SATA/SAS NO NO TPM IPMI NO NO 1 SATA/SAS NO NO TPM IKVM NO NO 2
3057-E5U 2xE5-242	20 1333MHz RDIMM 2x16GB No 700+Battery 12xHS S	SATA/SAS No No TPM iKVM No No 2
3057-E6U 2xE5-242	20 1333MHz RDIMM 2x16GB No 700+Battery 6x1TB 3.5" SATA 12xHS S	SATA/SAS No No TPM iKVM No No 2
Limited warranty	3-year parts and labor; more services information see S-RAL sheet	2U Rack top
Processor	Up to two Intel® Xeon® E5-2400 series processors.	-
1 10000001	Intel Xeon E5-2403 processor (4C/4T, 1.8GHz, 10MB, 6.4 GT/s QPI x1)	Power supper
	3-channel DDR3 memory controller (up to 1066MHz) Intel Xeon E5-2407 processor (4C/4T, 2.2GHz, 10MB, 6.4 GT/s QPI x1),	ower r car r car
	3-channel DDR3 memory controller (up to 1066MHz)	Power supply Power supply Power supply ser card 2 ser card 2
	Intel Xeon E5-2420 processor (6C/12T, 1.9GHz, 15MB, 7.2 GT/s QPI x1), Turbo Boost 2.0 (up to 2.4GHz),	Jy Jy
	3-channel DDR3 memory controller (up to 1333MHz)	
	Intel Xeon E5-2450 processor (8C/16T, 2.1GHz, 20MB, 8.0 GT/s QPI x1), Turbo Boost 2.0 (up to 2.9GHz),	
	3-channel DDR3 memory controller (up to 1600MHz)	
Implementation	Two LGA1356 sockets	-
Memory	UDIMM, RDIMM or LV RDIMM, DDR3, ECC, 3-channel per processor, 240-pin, 12 DIMM sockets (6 sockets per processor);	fan fan fan
	192GB max (RDIMM/LV RDIMM, 12x16GB) or 48GB max (UDIMM,	disks
Additional memory	12x4GB) • Actual memory operating speed depends on processor memory	
disclaimers	controller speed, installed memory speed, and quantity of memory DIMMs	Front
	 Over six DIMMs requires dual processors Mixing of UDIMM, RDIMM, or LV RDIMM is not supported 	Disk Bay 1-12
Graphics	Onboard Aspeed AST2300 graphics/management processor,	DISK Bay 1-12
•	one VGA DB-15 on rear; Maximum resolution: 1920x1200@60Hz	Rear
Disk bays	Twelve 3.5" hot-swap SATA/SAS disk bays (see right)	4 - PCle x16
Disk controller	RAID 500: ThinkServer RAID 500 adapter (LSI SAS 9240-8i),	5 - PCle x8
	PCI Express bus, SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 10 support	8 - PCle x8 2 - PCle x8 PSU PSU D D D D D D D D D D
	Upgrade for 500: Additional upgrade key for RAID 500 adapter,	Slot 4, 5 are available on dual processors models only
	add RAID 5, 50 support RAID 700: ThinkServer RAID 700 adapter (LSI SAS 9260-8i),	
	PCI Express bus, SATA 6.0Gb/s, SAS 6.0Gb/s,	
	RAID 0, 1, 5, 6, 10, 50, 60 support Battery for 700: Intelligent Battery Backup Unit (iBBU08) for RAID 700	
RAID Support	Up to RAID 0, 1, 5, 6, 10, 50, 60 via ThinkServer RAID 700 adapter	
Disk(s)	3.5" SATA: SATA 6.0Gb/s, 7200 rpm	
	3.5" SAS: SAS 6.0Gb/s, 15000 rpm	
Tape drive Optical	None None (use USB port)	
Diskette	None (use USB port)	Mechanical
Chipset	Intel C606 Chipset	• 2U rack
Ethernet	Two Gigabit Ethernet ports by Intel i350, one Gigabit Ethernet port by Intel 82574L, dedicate/share management	19"W x 28.9"D x 3.45"H (with rack handles) 482.4mm W x 734mm D x 87.6mm H (with rack handles)
Riser card	(See Right) Riser card 1 for slot 1-2, riser card 2 for slot 3-5	26.5 kg (58.42 lb) when fully configured
Front ports Rear ports	Two USB 2.0 Four USB 2.0, one serial (9-pin), two ethernet (RJ-45),	Disk Bays
	one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector	Bay 1-12 3.5", 1" high, external, for disk
Intelligent Diagnostics Module	None	Expansion Slots
(IDM)		Slot 1: half-length, full-height, PCI Express 3.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x8 (x4 elec)
Systems mgmt	Onboard Aspeed AST2300 graphics/management processor,	Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec)
	IPMI 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for iKVM	Slot 4-5 are available on dual processors models: Slot 4: half-length, full-height, PCI Express 3.0 x16 (x8 elec)
Coourity of in	functions	Slot 5: half-length, full-height, PCI Express 3.0 x8
Security chip	No onboard TPM chip; TPM: additional add-on card for TPM function, TCG 1.2-compliant	Security
Prerequisites	SATA/SAS disk, OS	Security chip (selected models, see information on left) Administrator password
Keyboard/mouse	None (use USB port)	User password
Power supply	One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS® Gold qualified, redundant with two power supplies	Boot sequence control Boot without keyboard, mouse, diskette
Rack kit	Includes rack kit	Serial port I/O control
Cable management	Optional cable management arm on selected models	USB port disablement (all)
Cooling	Four fans, hot-swap	Software Management Tools Think Sorver Food Stortup
		ThinkServer EasyStartup ThinkServer EasyManage
		Energy Management Technology
		Lenovo® SmartGrid Manager

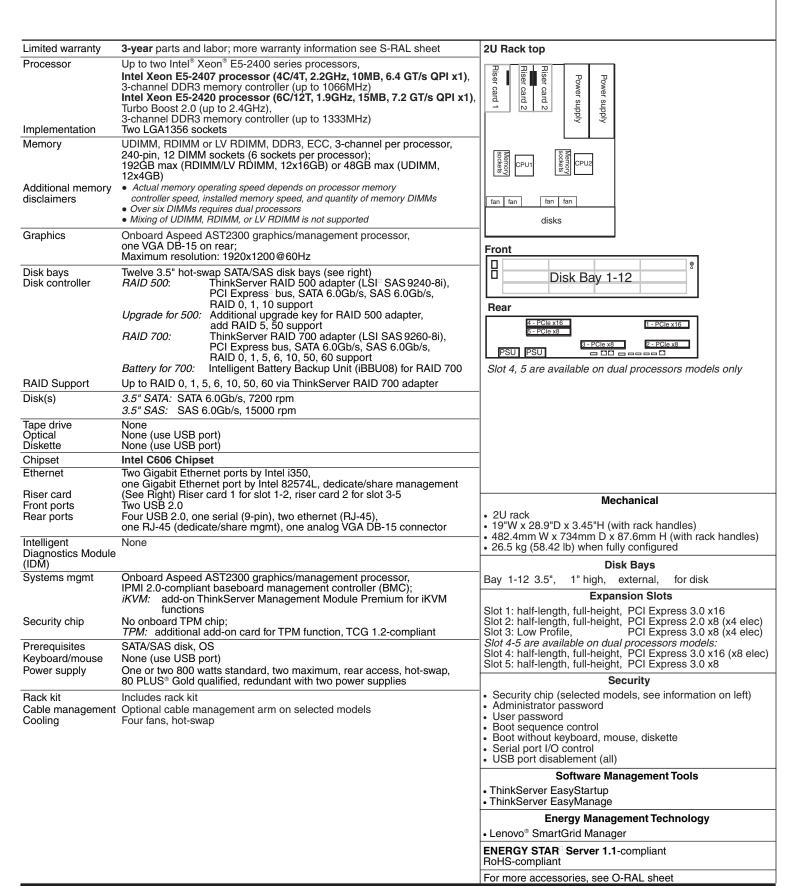
ENERGY STAR Server 1.1-compliant RoHS-compliant For more accessories, see O-RAL sheet

ThinkServer RD430 with twelve 3.5" Disk Bays (3059)

Type-		Memory	Memory	Pre-conf	Disk		Disk	Disk	SATA	Intelligent		System	Cable	Preload	PSU
model	Processor(s)	(MHz/type)	DIMMs	RAID	controller	Disk(s)	bays	type	optical	Diagnostics	TPM	mgmt	mgmt	os	qty
3059-F1U	1xE5-2420	1333MHz RDIMM	1x8GB	No	700+Battery	None	12xHS	SATA/SAS	No	No	TPM	IPMI	No	No	1
3059-F2U	1xE5-2403	1333MHz RDIMM	1x4GB	No	500+Upgrade	None	12xHS	SATA/SAS	No	No	TPM	IPMI	No	No	1
3059-F3U	1xE5-2420	1333MHz RDIMM	1x8GB	No	500+Upgrade	None	12xHS	SATA/SAS	No	No	TPM	iKVM	No	No	2
3059-F4U	2xE5-2450	1333MHz RDIMM	2x8GB	No	700+Battery	None	12xHS	SATA/SAS	No	No	TPM	iKVM	No	No	2

Limited warranty	3-year parts and labor; more warranty information see S-RAL sheet	2U Rack top
Processor	Up to two Intel® Xeon® E5-2400 series processors, Intel Xeon E5-2403 processor (4C/4T, 1.8GHz, 10MB, 6.4 GT/s QPI x1), 3-channel DDR3 memory controller (up to 1066MHz) Intel Xeon E5-2420 processor (6C/12T, 1.9GHz, 15MB, 7.2 GT/s QPI x1), Turbo Boost 2.0 (up to 2.4GHz), 3-channel DDR3 memory controller (up to 1333MHz) Intel Xeon E5-2450 processor (8C/16T, 2.1GHz, 20MB, 8.0 GT/s QPI x1), Turbo Boost 2.0 (up to 2.9GHz), 3-channel DDR3 memory controller (up to 1600MHz)	Power supply Power supply Riser card 2 Riser card 2 Riser card 1
Implementation	Two LGA1356 sockets	SOCIETA CPU1 SOCIETA CPU2
Memory Additional memory disclaimers	UDIMM, RDIMM or LV RDIMM, DDR3, ECC, 3-channel per processor, 240-pin, 12 DIMM sockets (6 sockets per processor); 192GB max (RDIMM/LV RDIMM, 12x16GB) or 48GB max (UDIMM, 12x4GB) • Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs • Over six DIMMs requires dual processors	fan fan fan disks
Graphics	Mixing of UDIMM, RDIMM, or LV RDIMM is not supported Onboard Aspeed AST2300 graphics/management processor, one VGA DB-15 on rear; Maximum resolution: 1920x1200@60Hz	Front Disk Bay 1-12
Disk bays Disk controller	Twelve 3.5" hot-swap SATA/SAS disk bays (see right) RAID 500: ThinkServer RAID 500 adapter (LSI SAS 9240-8i), PCI Express bus, SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 10 support Upgrade for 500: Additional upgrade key for RAID 500 adapter, add RAID 5, 50 support ThinkServer RAID 700 adapter (LSI SAS 9260-8i), PCI Express bus, SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 5, 6, 10, 50, 60 support Battery for 700: Intelligent Battery Backup Unit (iBBU08) for RAID 700	Rear 4-PClexi6 5-PClex8 PSU PSU DDD DDDDD Slot 4, 5 are available on dual processors models only
RAID Support	Up to RAID 0, 1, 5, 6, 10, 50, 60 via ThinkServer RAID 700 adapter	
Disk(s)	3.5" SATA: SATA 6.0Gb/s, 7200 rpm 3.5" SAS: SAS 6.0Gb/s, 15000 rpm	
Tape drive Optical Diskette	None None (use USB port) None (use USB port)	
Chipset	Intel C606 Chipset	Mechanical
Ethernet Riser card Front ports Rear ports	Two Gigabit Ethernet ports by Intel i350, one Gigabit Ethernet port by Intel 82574L, dedicate/share management (See Right) Riser card 1 for slot 1-2, riser card 2 for slot 3-5 Two USB 2.0 Four USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector	 2U rack 19"W x 28.9"D x 3.45"H (with rack handles) 482.4mm W x 734mm D x 87.6mm H (with rack handles) 26.5 kg (58.42 lb) when fully configured
Intelligent	None	Disk Bays Bay 1-12 3.5", 1" high, external, for disk
Diagnostics Module (IDM)		Expansion Slots
Systems mgmt Security chip	Onboard Aspeed AST2300 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for iKVM functions No onboard TPM chip;	Slot 1: half-length, full-height, PCI Express 3.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x8 (x4 elec) Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec) Slot 4-5 are available on dual processors models: Slot 4: half-length, full-height, PCI Express 3.0 x16 (x8 elec)
Prerequisites	TPM: additional add-on card for TPM function, TCG 1.2-compliant SATA/SAS disk, OS	Slot 5: half-length, full-height, PCI Express 3.0 x8
Keyboard/mouse Power supply	None (use USB port) One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS® Gold qualified, redundant with two power supplies	Security • Security chip (selected models, see information on left) • Administrator password • User password
Rack kit Cable management Cooling	Includes rack kit Optional cable management arm on selected models Four fans, hot-swap	Boot sequence control Boot without keyboard, mouse, diskette Serial port I/O control USB port disablement (all)
		Software Management Tools ThinkServer EasyStartup ThinkServer EasyManage
		Energy Management Technology
		Lenovo® SmartGrid Manager
		ENERGY STAR ^a Server 1.1-compliant RoHS-compliant
	ortant warranty information	For more accessories, see O-RAL sheet

Type-		Memory	Memory	Pre-conf	Disk		Disk	SATA	Intelligent		System	Cable	Preload	PSU
	Processor(s)	(MHz/type)	DIMMs	RAID	controller	Disk(s)	type	optical	Diagnostics	TPM	mgmt	mgmt	os	qty
3059-F6U	1xE5-2420	1600MHz RDIMM	1x8GB	No	700		SATA/SAS	No	No	TPM	iKVM	No	No	1
3059-F8U	1xE5-2407	1600MHz RDIMM	4x8GB	No	700+Battery	3x500GB 3.5" SATA	SATA/SAS	No	No	TPM	iKVM	No	No	2
3059-F9U	1xE5-2420	1600MHz RDIMM	6x8GB	No	700+Battery	3x300GB 3.5" SAS	SATA/SAS	No	No	TPM	iKVM	No	No	2



Type-		Memory	Memory	Pre-conf	Disk		Disk	Disk	SATA	Intelligent		System	Cable	Preload	PSU
model	Processor(s)	(MHz/type)	DIMMs	RAID	controller	Disk(s)	bays	type	optical	Diagnostics	TPM	mgmt	mgmt	os	qty
3059-K5L	J 1xE5-2450	1600MHz RDIMM	1x8GB	No	700	No	12xHS	SATA/SAS	No	No	TPM	iKVM	No	No	1

Limited warranty	3-year parts and labor; more warranty information see S-RD sheet	2U Rack top
Processor	Up to two Intel® Xeon® E5-2400 series processors, Intel Xeon E5-2450 processor (8C/16T, 2.1GHz, 20MB, 8.0 GT/s QPI x1), Turbo Boost 2.0 (up to 2.9GHz), 3-channel DDR3 memory controller (up to 1600MHz)	Power supply Power supply Power supply Riser card 2 Riser card 2
Implementation	Two LGA1356 sockets	
Memory	UDIMM, RDIMM or LV RDIMM, DDR3, ECC, 3-channel per processor, 240-pin, 12 DIMM sockets (6 sockets per processor); 192GB max (RDIMM/LV RDIMM, 12x16GB) or 48GB max (UDIMM, 12x4GB)	
Additional memory disclaimers	 Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs Over six DIMMs requires dual processors Mixing of UDIMM, RDIMM, or LV RDIMM is not supported 	Sometime (CPU1) Sometime (CPU2) Sometime (CPU2
Graphics	Onboard Aspeed AST2300 graphics/management processor, one VGA DB-15 on rear; Maximum resolution: 1920x1200@60Hz	disks
Disk bays Disk controller	Twelve 3.5" hot-swap SATA/SAS disk bays (see right) RAID 500: ThinkServer RAID 500 adapter (LSI SAS 9240-8i), PCI Express bus, SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 10 support	Front Disk Bay 1-12
	Upgrade for 500: Additional upgrade key for RAID 500 adapter, add RAID 5, 50 support RAID 700: ThinkServer RAID 700 adapter (LSI SAS 9260-8i), PCI Express bus, SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0.15 5 6, 10 50 60 support	Rear 4-PCle x16 5-PCle x8
	Battery for 700: RAID 0, 1, 5, 6, 10, 50, 60 support Intelligent Battery Backup Unit (iBBU08) for RAID 700	3 - PCle x8 2 - PCle x8
RAID Support	Up to RAID 0, 1, 5, 6, 10, 50, 60 via ThinkServer RAID 700 adapter	PSU PSU D D D D D D D D D D D D D D D D D D D
Disk(s)	3.5" SATA: SATA 6.0Gb/s, 7200 rpm 3.5" SAS: SAS 6.0Gb/s, 15000 rpm	- Slot 4, 5 are available on dual processors models only
Tape drive Optical Diskette	None None (use USB port) None (use USB port)	
Chipset	Intel C606 Chipset	
Ethernet Riser card Front ports	Two Gigabit Ethernet ports by Intel i350, one Gigabit Ethernet port by Intel 82574L, dedicate/share management (See Right) Riser card 1 for slot 1-2, riser card 2 for slot 3-5 Two USB 2.0	
Rear ports	Four USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector	Mechanical
Intelligent Diagnostics Module (IDM)	None	 2U rack 19"W x 28.9"D x 3.45"H (with rack handles) 482.4mm W x 734mm D x 87.6mm H (with rack handles) 26.5 kg (58.42 lb) when fully configured
Systems mgmt	Onboard Aspeed AST2300 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for iKVM functions	Disk Bays Bay 1-12 3.5", 1" high, external, for disk
Security chip	No onboard TPM chip; TPM: additional add-on card for TPM function, TCG 1.2-compliant	Expansion Slots Slot 1: half-length, full-height, PCI Express 3.0 x16
Prerequisites Keyboard/mouse Power supply	SATA/SAS disk, OS None (use USB port) One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS® Gold qualified, redundant with two power supplies	Slot 2: half-length, full-height, PCI Express 2.0 x8 (x4 elec) Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec) Slot 4-5 are available on dual processors models: Slot 4: half-length, full-height, PCI Express 3.0 x16 (x8 elec) Slot 5: half-length, full-height, PCI Express 3.0 x8
Rack kit Cable management Cooling	Includes rack kit Optional cable management arm on selected models Four fans, hot-swap	Security Security Security chip (selected models, see information on left) Administrator password User password Boot sequence control Boot without keyboard, mouse, diskette Serial port I/O control USB port disablement (all)
		Software Management Tools ThinkServer EasyStartup ThinkServer EasyManage
		Energy Management Technology • Lenovo® SmartGrid Manager
		ENERGY STAR Server 1.1-compliant RoHS-compliant
		For more accessories, see O-RAL sheet

ThinkServer RD430 with 2.5" Disk Bay (3070) - TopSeller

ininkServer h	D430 with 2.5 Disk Bay (3070) - TopSeller	Troduct Openications reference (FORLY)				
3070-C2U 1xE5-240 3070-C3U 1xE5-242 3070-C4U 1xE5-245 3070-C5U 1xE5-245 3070-C6U 1xE5-245 3070-C7U 1xE5-245 3070-C8U 1xE5-245	3 1333MHz RDIMM 1x4GB No 300 8xHS S 7 1333MHz RDIMM 1x4GB No 300 8xHS S 0 1333MHz RDIMM 1x8GB No 500+Upgrade 8xHS S 0 1333MHz RDIMM 1x16GB No 700+Battery 8xHS S 0 1333MHz RDIMM 1x16GB No 500+Upgrade 16xHS S 0 1333MHz RDIMM 1x16GB No 700+Battery 16xHS S 0 1333MHz RDIMM 1x16GB No 700+Battery 16xHS S 0 1333MHz RDIMM 1x16GB No 700+Battery 6x300GB 2.5" SAS 16xHS S 0 1333MHz RDIMM 1x8GB No 300 8xHS S	Disk				
Limited warranty	3-year parts and labor; more services information see S-RAL sheet	2U Rack top				
Processor	Up to two Intel® Xeon® E5-2400 series processors, Intel Xeon E5-2403 processor (4C/4T, 1.8GHz, 10MB, 6.4 GT/s QPI x1), 3-channel DDR3 memory controller (up to 1066MHz) Intel Xeon E5-2407 processor (4C/4T, 2.2GHz, 10MB, 6.4 GT/s QPI x1), 3-channel DDR3 memory controller (up to 1066MHz) Intel Xeon E5-2420 processor (6C/12T, 1.9GHz, 15MB, 7.2 GT/s QPI x1), Turbo Boost 2.0 (up to 2.4GHz), 3-channel DDR3 memory controller (up to 1333MHz) Intel Xeon E5-2450 processor (8C/16T, 2.1GHz, 20MB, 8.0 GT/s QPI x1), Turbo Boost 2.0 (up to 2.9GHz), 3-channel DDR3 memory controller (up to 1600MHz) Two LGA1356 sockets	Power supply Power supply Power supply Riser card 2 Riser card 2 Riser card 1 Riser card 1				
Memory	UDIMM, RDIMM or LV RDIMM, DDR3, ECC, 3-channel per processor,	fan fan fan fan				
Additional memory disclaimers	240-pin, 12 DIMM sockets (6 sockets per processor); 192GB max (RDIMM/LV RDIMM, 12x16GB) or 48GB max (UDIMM, 12x4GB) • Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs	optical disks Front				
	Over six DIMMs requires dual processors Mixing of UDIMM, RDIMM, or LV RDIMM is not supported	● ○ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □				
Graphics	Onboard Aspeed AST2300 graphics/management processor, one VGA DB-15 on front, one VGA DB-15 on rear; Maximum resolution: 1920x1200@60Hz	Optical 2-9 10-17 Bay 10-17 are available on sixteen disk bays models only				
Disk bays Disk controller	Eight or sixteen 2.5" hot-swap SATA/SAS disk bays (see right) RAID 300: Onboard ThinkServer RAID 300 SATA/SAS controller, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1, 10 support Upgrade for 300: Additional upgrade key for RAID 300, add RAID 5 support ThinkServer RAID 500 adapter (LSI SAS 9240-8i), PCI Express bus, SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 10 support Upgrade for 500: Additional upgrade key for RAID 500 adapter, add RAID 5, 50 support	Rear 4-PCle x16 5-PCle x8 1-PCle x16 5-PCle x8 2-PCle x8 PSU PSU 00000000000000000000000000000000				
RAID Support Disk(s)	ThinkServer RAID 700 adapter (LSI SAS 9260-8i), PCI Express bus, SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 5, 6, 10, 50, 60 support Intelligent Battery Backup Unit (iBBU08) for RAID 700 Up to RAID 0, 1, 5, 6, 10, 50, 60 via ThinkServer RAID 700 adapter 2.5" SAS: SAS 6.0Gb/s, 10000 rpm	• 2U rack • 19"W x 28.9"D x 3.45"H (with rack handles) • 482.4mm W x 734mm D x 87.6mm H (with rack handles) • 26.5 kg (58.42 lb) when fully configured				
DISK(S)	SSD: Solid State Drive, 2.5"	Disk Bays				
Tape drive Optical Diskette	None DVD±RW or DVD ROM, slim None (use USB port)	Bay 1 5.25", 0.5" high, external, for optical Bay 2-9 2.5", 0.6" high, external, for disk Bay 10-17 are available on sixteen 2.5" disk bays model: Bay 10-17 2.5", 0.6" high, external, for disk				
Chipset Ethernet	Intel C606 Chipset Two Gigabit Ethernet ports by Intel i350,	Expansion Slots				
Riser card Front ports Rear ports	one Gigabit Ethernet port by Intel 82574L, dedicate/share management (See Right) Riser card 1 for slot 1-2, riser card 2 for slot 3-5 One analog VGA DB-15 connector, two USB 2.0 Four USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector Supports IDM or IDM Premium on selected models;	Slot 1: half-length, full-height, PCI Express 3.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x8 (x4 elec) Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec) Slot 4-5 are available on dual processors models: Slot 4: half-length, full-height, PCI Express 3.0 x16 (x8 elec) Slot 5: half-length, full-height, PCI Express 3.0 x8				
Diagnostics Module	Basic: IDM LED lights indicate failing component category	Security				
Systems mgmt	Premium: IDM Premium LED lights indicate individual failing part Onboard Aspeed AST2300 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for iKVM functions.	Security chip (selected models, see information on left) Administrator password User password Boot sequence control Boot without keyboard, mouse, diskette				
Security chip	No onboard TPM chip; TPM: additional add-on card for TPM function, TCG 1.2-compliant	Serial port I/O control USB port disablement (all)				
Prerequisites Keyboard/mouse Power supply	SATA/SAS disk, OS None (use USB port) One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS® Gold qualified, redundant with two power supplies	Software Management Tools ThinkServer EasyStartup ThinkServer EasyManage				
Rack kit Cable management	Includes rack kit Optional cable management arm on selected models	Energy Management Technology Lenovo® SmartGrid Manager				
Cooling	Four fans, hot-swap	ENERGY STAR® Server 1.1-compliant RoHS-compliant				

For more accessories, see O-RAL sheet

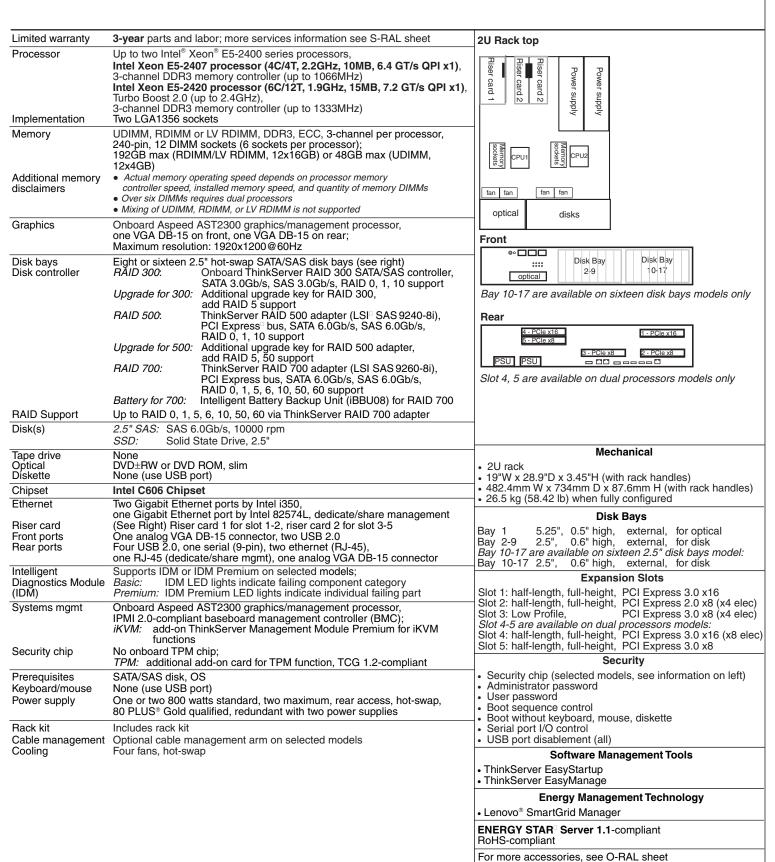
ThinkServer RD430 with 2.5" Disk Bay (3071)

Type-		Memory	Memory	Pre-conf	Disk		Disk	Disk	SATA	Intelligent		Sys	Cable	Preload	PSU
model	Processor(s)	(MHz/type)	DIMMs	RAID	controller	Disk(s)	bays	type	optical	Diagnostics	TPM	mgmt	mgmt	os	qty
3071-D1U	1xE5-2420	1333MHz RDIMM	I 1x8GB	No	700+Battery	None	8xHS	SATA/SAS	DVD±RW	Premium	TPM	IPMI	No	No	1
3071-D2U	1xE5-2403	1333MHz RDIMM	l 1x4GB	No	300	None	8xHS	SATA/SAS	DVD±RW	Basic	TPM	IPMI	No	No	1
3071-D3U	1xE5-2420	1333MHz RDIMM	l 1x8GB	No	500+Upgrade	None	16xHS	SATA/SAS	DVD±RW	Premium	TPM	iKVM	No	No	2

Limited warranty	3-year parts and labor; more services information see S-RAL sheet	2U Rack top
Processor Implementation	Up to two Intel® Xeon® E5-2400 series processors, Intel Xeon E5-2403 processor (4C/4T, 1.8GHz, 10MB, 6.4 GT/s QPI x1), 3-channel DDR3 memory controller (up to 1066MHz) Intel Xeon E5-2420 processor (6C/12T, 1.9GHz, 15MB, 7.2 GT/s QPI x1), Turbo Boost 2.0 (up to 2.4GHz), 3-channel DDR3 memory controller (up to 1333MHz) Two LGA1356 sockets	Power supply Power supply Riser card 2 Riser card 2
Memory	UDIMM, RDIMM or LV RDIMM, DDR3, ECC, 3-channel per processor,	1
•	240-pin, 12 DIMM sockets (6 sockets per processor); 192GB max (RDIMM/LV RDIMM, 12x16GB) or 48GB max (UDIMM, 12x4GB)	Mamory CPU1 CPU2
Additional memory disclaimers	 Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs Over six DIMMs requires dual processors Mixing of UDIMM, RDIMM, or LV RDIMM is not supported 	fan fan fan optical disks
Graphics	Onboard Aspeed AST2300 graphics/management processor, one VGA DB-15 on front, one VGA DB-15 on rear; Maximum resolution: 1920x1200@60Hz	Front
Disk bays Disk controller	Eight or sixteen 2.5" hot-swap SATA/SAS disk bays (see right) RAID 300: Onboard ThinkServer RAID 300 SATA/SAS controller, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1, 10 support Upgrade for 300: Additional upgrade key for RAID 300, add RAID 5 support	Bay 10-17 are available on sixteen disk bays models only
	RAID 500: ThinkServer RAİD 500 adapter (LSI SAS 9240-8i), PCI Express bus, SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 10 support	# - PCle x16
	Upgrade for 500: Additional upgrade key for RAID 500 adapter, add RAID 5, 50 support RAID 700: ThinkServer RAID 700 adapter (LSI SAS 9260-8i), PCI Express bus, SATA 6.0Gb/s, SAS 6.0Gb/s,	Slot 4, 5 are available on dual processors models only
	Battery for 700: RAID 0, 1, 5, 6, 10, 50, 60 support Intelligent Battery Backup Unit (iBBU08) for RAID 700	
RAID Support	Up to RAID 0, 1, 5, 6, 10, 50, 60 via ThinkServer RAID 700 adapter	
Disk(s)	2.5" SAS: SAS 6.0Gb/s, 10000 rpm SSD: Solid State Drive, 2.5"	
Tape drive Optical Diskette	None DVD±RW or DVD ROM, slim None (use USB port)	Mechanical • 2U rack • 19"W x 28.9"D x 3.45"H (with rack handles)
Chipset	Intel C606 Chipset	• 482.4mm W x 734mm D x 87.6mm H (with rack handles)
Ethernet	Two Gigabit Ethernet ports by Intel i350, one Gigabit Ethernet port by Intel 82574L, dedicate/share management	• 26.5 kg (58.42 lb) when fully configured
Riser card	(See Right) Riser card 1 for slot 1-2, riser card 2 for slot 3-5	Disk Bays
Front ports	One analog VGA DB-15 connector, two USB 2.0	Bay 1 5.25", 0.5" high, external, for optical
Rear ports	Four USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector	Bay 2-9 2.5", 0.6" high, external, for disk Bay 10-17 are available on sixteen 2.5" disk bays model: Bay 10-17 2.5", 0.6" high, external, for disk
Intelligent Diagnostics Module	Four USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector Supports IDM or IDM Premium on selected models; Basic: IDM LED lights indicate failing component category	Bay 10-17 are available on sixteen 2.5" disk bays model: Bay 10-17 2.5", 0.6" high, external, for disk Expansion Slots
Intelligent Diagnostics Module (IDM) Systems mgmt	Four USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector Supports IDM or IDM Premium on selected models; Basic: IDM LED lights indicate failing component category Premium: IDM Premium LED lights indicate individual failing part Onboard Aspeed AST2300 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for iKVM functions	Bay 10-17 are available on sixteen 2.5" disk bays model: Bay 10-17 2.5", 0.6" high, external, for disk Expansion Slots Slot 1: half-length, full-height, PCI Express 3.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x8 (x4 elec) Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec) Slot 4-5 are available on dual processors models:
Intelligent Diagnostics Module (IDM)	Four USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector Supports IDM or IDM Premium on selected models; Basic: IDM LED lights indicate failing component category Premium: IDM Premium LED lights indicate individual failing part Onboard Aspeed AST2300 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for iKVM	Bay 10-17 are available on sixteen 2.5" disk bays model: Bay 10-17 2.5", 0.6" high, external, for disk Expansion Slots Slot 1: half-length, full-height, PCI Express 3.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x8 (x4 elec) Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec) Slot 4: half-length full-height, PCI Express 3.0 x16 (x8 elec) Slot 5: half-length, full-height, PCI Express 3.0 x8 Security
Intelligent Diagnostics Module (IDM) Systems mgmt Security chip Prerequisites	Four USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector Supports IDM or IDM Premium on selected models; Basic: IDM LED lights indicate failing component category Premium: IDM Premium LED lights indicate individual failing part Onboard ASPeed AST2300 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for iKVM functions No onboard TPM chip; TPM: additional add-on card for TPM function, TCG 1.2-compliant SATA/SAS disk, OS	Bay 10-17 are available on sixteen 2.5" disk bays model: Bay 10-17 2.5", 0.6" high, external, for disk Expansion Slots Slot 1: half-length, full-height, PCI Express 3.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x8 (x4 elec) Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec) Slot 4: balf-length, full-height, PCI Express 3.0 x16 (x8 elec) Slot 5: half-length, full-height, PCI Express 3.0 x8 Security • Security chip (selected models, see information on left)
Intelligent Diagnostics Module (IDM) Systems mgmt Security chip Prerequisites Keyboard/mouse	Four USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector Supports IDM or IDM Premium on selected models; Basic: IDM LED lights indicate failing component category Premium: IDM Premium LED lights indicate individual failing part Onboard Aspeed AST2300 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for iKVM functions No onboard TPM chip; TPM: additional add-on card for TPM function, TCG 1.2-compliant SATA/SAS disk, OS None (use USB port)	Bay 10-17 are available on sixteen 2.5" disk bays model: Bay 10-17 2.5", 0.6" high, external, for disk Expansion Slots Slot 1: half-length, full-height, PCI Express 3.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x8 (x4 elec) Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec) Slot 4: half-length full-height, PCI Express 3.0 x16 (x8 elec) Slot 5: half-length, full-height, PCI Express 3.0 x8 Security
Intelligent Diagnostics Module (IDM) Systems mgmt Security chip Prerequisites	Four USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector Supports IDM or IDM Premium on selected models; Basic: IDM LED lights indicate failing component category Premium: IDM Premium LED lights indicate individual failing part Onboard ASPeed AST2300 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for iKVM functions No onboard TPM chip; TPM: additional add-on card for TPM function, TCG 1.2-compliant SATA/SAS disk, OS	Bay 10-17 are available on sixteen 2.5" disk bays model: Bay 10-17 2.5", 0.6" high, external, for disk Expansion Slots Slot 1: half-length, full-height, PCI Express 3.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x8 (x4 elec) Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec) Slot 4: half-length full-height, PCI Express 3.0 x16 (x8 elec) Slot 5: half-length, full-height, PCI Express 3.0 x16 (x8 elec) Slot 5: half-length, full-height, PCI Express 3.0 x8 Security Security Security chip (selected models, see information on left) Administrator password User password Boot sequence control
Intelligent Diagnostics Module (IDM) Systems mgmt Security chip Prerequisites Keyboard/mouse Power supply Rack kit	Four USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector Supports IDM or IDM Premium on selected models; Basic: IDM LED lights indicate failing component category Premium: IDM Premium LED lights indicate individual failing part Onboard Aspeed AST2300 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for iKVM functions No onboard TPM chip; TPM: additional add-on card for TPM function, TCG 1.2-compliant SATA/SAS disk, OS None (use USB port) One or two 800 watts standard, two maximum, rear access, hot-swap,	Bay 10-17 are available on sixteen 2.5" disk bays model: Bay 10-17 2.5", 0.6" high, external, for disk Expansion Slots Slot 1: half-length, full-height, PCI Express 3.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x8 (x4 elec) Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec) Slot 4-5 are available on dual processors models: Slot 4: half-length, full-height, PCI Express 3.0 x16 (x8 elec) Slot 5: half-length, full-height, PCI Express 3.0 x8 Security Security Security chip (selected models, see information on left) Administrator password
Intelligent Diagnostics Module (IDM) Systems mgmt Security chip Prerequisites Keyboard/mouse Power supply Rack kit	Four USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector Supports IDM or IDM Premium on selected models; Basic: IDM LED lights indicate failing component category Premium: IDM Premium LED lights indicate individual failing part Onboard Aspeed AST2300 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for iKVM functions No onboard TPM chip; TPM: additional add-on card for TPM function, TCG 1.2-compliant SATA/SAS disk, OS None (use USB port) One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS® Gold qualified, redundant with two power supplies Includes rack kit	Bay 10-17 are available on sixteen 2.5" disk bays model: Bay 10-17 2.5", 0.6" high, external, for disk Expansion Slots Slot 1: half-length, full-height, PCI Express 3.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x8 (x4 elec) Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec) Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec) Slot 4: half-length, full-height, PCI Express 3.0 x16 (x8 elec) Slot 5: half-length, full-height, PCI Express 3.0 x8 Security Security Security chip (selected models, see information on left) Administrator password User password Boot sequence control Boot without keyboard, mouse, diskette Serial port I/O control
Intelligent Diagnostics Module (IDM) Systems mgmt Security chip Prerequisites Keyboard/mouse Power supply Rack kit Cable management	Four USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector Supports IDM or IDM Premium on selected models; Basic: IDM LED lights indicate failing component category Premium: IDM Premium LED lights indicate individual failing part Onboard Aspeed AST2300 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for iKVM functions No onboard TPM chip; TPM: additional add-on card for TPM function, TCG 1.2-compliant SATA/SAS disk, OS None (use USB port) One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS® Gold qualified, redundant with two power supplies Includes rack kit Optional cable management arm on selected models	Bay 10-17 are available on sixteen 2.5" disk bays model: Bay 10-17 2.5", 0.6" high, external, for disk Expansion Slots Slot 1: half-length, full-height, PCI Express 3.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x8 (x4 elec) Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec) Slot 4: half-length, full-height, PCI Express 3.0 x8 (x4 elec) Slot 5: half-length, full-height, PCI Express 3.0 x16 (x8 elec) Slot 5: half-length, full-height, PCI Express 3.0 x8 Security Security Security chip (selected models, see information on left) Administrator password User password Boot sequence control Boot without keyboard, mouse, diskette Serial port I/O control USB port disablement (all) Software Management Tools ThinkServer EasyStartup
Intelligent Diagnostics Module (IDM) Systems mgmt Security chip Prerequisites Keyboard/mouse Power supply Rack kit Cable management	Four USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector Supports IDM or IDM Premium on selected models; Basic: IDM LED lights indicate failing component category Premium: IDM Premium LED lights indicate individual failing part Onboard Aspeed AST2300 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for iKVM functions No onboard TPM chip; TPM: additional add-on card for TPM function, TCG 1.2-compliant SATA/SAS disk, OS None (use USB port) One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS® Gold qualified, redundant with two power supplies Includes rack kit Optional cable management arm on selected models	Bay 10-17 are available on sixteen 2.5" disk bays model: Bay 10-17 2.5", 0.6" high, external, for disk Expansion Slots Slot 1: half-length, full-height, PCI Express 3.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x8 (x4 elec) Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec) Slot 4: half-length, full-height, PCI Express 3.0 x16 (x8 elec) Slot 5: half-length, full-height, PCI Express 3.0 x16 (x8 elec) Slot 5: half-length, full-height, PCI Express 3.0 x8 Security Security Security chip (selected models, see information on left) Administrator password User password Boot sequence control Boot without keyboard, mouse, diskette Serial port I/O control USB port disablement (all) Software Management Tools ThinkServer EasyStartup ThinkServer EasyManage
Intelligent Diagnostics Module (IDM) Systems mgmt Security chip Prerequisites Keyboard/mouse Power supply Rack kit Cable management	Four USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector Supports IDM or IDM Premium on selected models; Basic: IDM LED lights indicate failing component category Premium: IDM Premium LED lights indicate individual failing part Onboard Aspeed AST2300 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for iKVM functions No onboard TPM chip; TPM: additional add-on card for TPM function, TCG 1.2-compliant SATA/SAS disk, OS None (use USB port) One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS® Gold qualified, redundant with two power supplies Includes rack kit Optional cable management arm on selected models	Bay 10-17 are available on sixteen 2.5" disk bays model: Bay 10-17 2.5", 0.6" high, external, for disk Expansion Slots Slot 1: half-length, full-height, PCI Express 3.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x8 (x4 elec) Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec) Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec) Slot 4: half-length, full-height, PCI Express 3.0 x16 (x8 elec) Slot 5: half-length, full-height, PCI Express 3.0 x8 Security Security Security chip (selected models, see information on left) Administrator password User password Boot sequence control Boot without keyboard, mouse, diskette Serial port I/O control USB port disablement (all) Software Management Tools ThinkServer EasyStartup
Intelligent Diagnostics Module (IDM) Systems mgmt Security chip Prerequisites Keyboard/mouse Power supply Rack kit Cable management	Four USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector Supports IDM or IDM Premium on selected models; Basic: IDM LED lights indicate failing component category Premium: IDM Premium LED lights indicate individual failing part Onboard Aspeed AST2300 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for iKVM functions No onboard TPM chip; TPM: additional add-on card for TPM function, TCG 1.2-compliant SATA/SAS disk, OS None (use USB port) One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS® Gold qualified, redundant with two power supplies Includes rack kit Optional cable management arm on selected models	Bay 10-17 are available on sixteen 2.5" disk bays model: Bay 10-17 2.5", 0.6" high, external, for disk Expansion Slots Slot 1: half-length, full-height, PCI Express 3.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x8 (x4 elec) Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec) Slot 4: half-length, full-height, PCI Express 3.0 x16 (x8 elec) Slot 5: half-length, full-height, PCI Express 3.0 x16 (x8 elec) Slot 5: half-length, full-height, PCI Express 3.0 x8 Security Security Security chip (selected models, see information on left) Administrator password User password Boot sequence control Boot without keyboard, mouse, diskette Serial port I/O control USB port disablement (all) Software Management Tools ThinkServer EasyManage Energy Management Technology

ThinkServer RD430 with 2.5" Disk Bay (3071) - September 2012

Type-		Memory	Memory	Pre-conf	Disk		Disk	Disk	SATA	Intelligent		Sys	Cable	Preload	PSU
model	Processor(s)	(MHz/type)	DIMMs	RAID	controller	Disk(s)	bays	type	optical	Diagnostics	TPM	mgmt	mgmt	os	qty
3071-D4U	1xE5-2420	1600MHz RDIMN	I 1x8GB	No	300		8xHS	SATA/SAS	DVD±RW	Premium	TPM	iKVM	No	No	1
3071-D6U	1xE5-2407	1600MHz RDIMN	l 4x8GB	No	700+Battery	3x300GB 2.5" SAS	8xHS	SATA/SAS	DVD±RW	Premium	TPM	iKVM	No	No	2
3071-D7U	1xE5-2420	1600MHz RDIMM	l 6x8GB	No	700+Battery	3x300GB 2.5" SAS	8xHS	SATA/SAS	DVD±RW	Premium	TPM	iKVM	No	No	2



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model	Processor(s)	(MHz/type)	DIMMs	RAID	controller	Disk(s)	bays	type	optical	Diagnostics	TPM	mgmt	mgmt	os	qty
3071-K4L	J 1xE5-2450	1600MHz RDIMN	/I 1x8GB	No	300	No	8xHS	SATA/SAS	DVD±RW	Premium	TPM	iKVM	No	No	1

one VGA DB-15 on front, one VGA DB-15 on rear; Maximum resolution: 1920x1200@60Hz			
Implementation Limited warranty	3-year parts and labor; more services information see S-RD sheet	2U Rack top	
Memory UDIMM, RDIMM or LV RDIMM, DR3, ECC, 3-channel per processor, 240-pn; 12 DIMM sockets (6 sockets per processor); 1920c max (RDIMMLV RDIMM, 12:1050) or 490c max (UDIMM, 25:1050) or 490		Intel Xeon E5-2450 processor (8C/16T, 2.1GHz, 20MB, 8.0 GT/s QPI x1), Turbo Boost 2.0 (up to 2.9GHz), 3-channel DDR3 memory controller (up to 1600MHz)	Powers Powers Riser caro
240-pin, 12 DIMM sockets (6 sockets per processor); 1926B max (IDIMM). 126B Mink 1, 1216B max (IDIMM). 1216B mink 1, 1216B mink			
Concerned Publishe requirement and proposations Concerned Publishe requirement and proposations Concerned Publishe Published Publ		240-pin, 12 DIMM sockets (6 sockets per processor); 192GB max (RDIMM/LV RDIMM, 12x16GB) or 48GB max (UDIMM, 12x4GB)	
Disk bays Disk controller All 200: Chocard ThinkServer RAID 300 SATA/SAS controller, All 200: Chocard ThinkServer RAID 300 Adapter (LSI SAS 260-8), Chicard ThinkServer RAID 700 adapter add RAID 5. 50 support Chocard ThinkServer RAID 700 adapter (Sata Sas Sac Sas		controller speed, installed memory speed, and quantity of memory DIMMs Over six DIMMs requires dual processors	
Disk controller Ali 300.	Graphics	one VGA DB-15 on front, one VGA DB-15 on rear;	optical disks
RAID Support Battery for 700: Intelligent Battery Backup Unit (iBBU08) for RAID 700 Disk(s) 2.5° SAS: SAS 6.06.60 (s. 00.000 rpm SSD: Solid State Drive, 2.5° Solid State State Drive, 2.5° Soli	Disk bays Disk controller	RĂID 300: Onboard ThinkServer RAID 300 SATA/SAS controller, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1, 10 support Upgrade for 300: Additional upgrade key for RAID 300, add RAID 5 support ThinkServer RAID 500 adapter (LSI SAS 9240-8i), PCI Express bus, SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 10 support Upgrade for 500: Additional upgrade key for RAID 500 adapter, add RAID 5, 50 support ThinkServer RAID 700 adapter (LSI SAS 9260-8i),	Disk Bay 10-17 Bay 10-17 are available on sixteen disk bays models only Rear 4-PCle x16 5-PCle x8 2-PCle x8 2-PCle x8
RAID Support		RAID 0, 1, 5, 6, 10, 50, 60 support	
Disk(s) 2.5" SAS: SAS 6.0Gb/s, 10000 rpm SSD: SOlid State Drive, 2.5"	DAID Command		Slot 4, 5 are available on dual processors models only
SSD: Solid State Drive, 2.5° Tape drive None Optical None (use USB port) Diskette None (use USB port) Chipset Intel C606 Chipset Two Gigabit Ethernet port by Intel I350, one Gigabit Ethernet Intel I3			_
Optical DVD±RW or DVD ROM, slim None (use USB port) Chipset Intel C806 Chipset Ethernet Two Gigabit Ethernet port by Intel 350, one Gigabit Ethernet port by Intel 82574L, dedicate/share management (See Right) Riser card 1 for slot 1-2, riser card 2 for slot 3-5 Riser card (See Right) Riser card 1 for slot 1-2, riser card 2 for slot 3-5 Rear ports One analog VGA DB-15 connector, two USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgml), one analog VGA DB-15 connector one RJ-45 (dedicate/share mgml), one analog VGA DB-15 connector litelligent Supports IDM or IDM Premium on selected models: Systems mgmt Systems mgmt Onboard Aspeed AST22300 graphics/management processor, IPM 2-0-compliant baseboard management controller (BMC); if VM: add-on ThinkServer Management Module Premium for iKVM functions Security chip One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS* Gold qualified, redundant with two power supplies Rack kit Includes rack kit Cable management or the way of the power supplies of the management or the way of the power supplies of the power	DISK(S)	2.5" SAS: SAS 6.0Gb/s, 10000 rpm SSD: Solid State Drive, 2.5"	
Ethernet Two Gigabit Ethernet ports by Intel i350, one Gigabit Ethernet port by Intel i350, one Gigabit Ethernet port by Intel i3574L, dedicate/share management (See Riight) Riser card 1 for slot 1-2, riser card 2 for slot 3-5 Front ports One analog VGA DB-15 connector, two USB 2.0 One BJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector Intelligent Diagnostics Module (IDM) Systems mgmt Onboard Aspeed AST2300 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC); I//Viv. add-on ThinkServer Management Management Management processor, IPMI 2.0-compliant baseboard management Management on the Includes a SATX-SAS disk, OS Security chip Security chip Fore quisites Security chip One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS® Gold qualified, redundant with two power supplies Power supply One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS® Gold qualified, redundant with two power supplies Power supply Fore tana, hot-swap Rack kit Cable management Cooling Co	Optical	DVD±RW or DVD ROM, slim	
Riser card (See Right) Riser card 1 for slot 1-2, riser card 2 for slot 3-5 Front ports One analog VGA DB-15 connector, two USB 2.0 Rear ports Four USB 2.0, one serial (9-pin), two ethernet (RU-45), one RU-45 (decidate/share manalog VGA DB-15 connector) Intelligent Diagnostics Modul (DM) Premium: IDM Premium no selected models; Basic: IDM LED lights indicate failing component category (IDM) Premium: IDM Premium LED lights indicate individual failing part Systems mgmt Onboard Aspeed AST2300 graphics/management processor, IPM 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for IBM clip; TPM: additional add-on card for TPM function, TCG 1.2-compliant Prerequisites Keyboard/mouse Power supply Power supply Rack kit Optional cable management arm on selected models Cooling Pressor of the supplement of the supplem		•	
one RJ-45 (dedicate/share mgmt), one analog VGA DB-15 connector Intelligent Diagnostics Module (IDM) Systems mgmt UDM LED lights indicate failing component category Premium: Diagnostics Module (IDM) Systems mgmt UDM LED lights indicate failing component category Premium: Diagnostics Module (IDM) Systems mgmt UDM LED lights indicate failing component category Premium: Diagnostics Module (IDM) Systems mgmt UDM LED lights indicate failing component category Premium: Diagnostics Module (IDM) Systems mgmt UDM Premium LED lights indicate individual failing part Systems mgmt UDM Premium LED lights indicate individual failing part Systems mgmt UDM Premium LED lights indicate individual failing part Systems mgmt UDM Premium LED lights indicate individual failing part Systems mgmt UDM Premium LED lights indicate failing component category IDM LeD lights indicate failing component records. Slot 1: half-length, full-height, PCI Express 3.0 x8 (x4 elec) Slot 4: balf-length	Riser card	one Gigabit Ethernet port by Intel 82574L, dedicate/share management (See Right) Riser card 1 for slot 1-2, riser card 2 for slot 3-5 One analog VGA DB-15 connector, two USB 2.0	482.4mm W x 734mm D x 87.6mm H (with rack handles) 26.5 kg (58.42 lb) when fully configured
Intelligent Diagnostics Module Diagnostics Module Passic: IDM cED lights indicate failing component category (IDM) Systems mgmt Onboard Aspeed AST2300 graphics/management processor, IPMI 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for iKVM functions Security chip No onboard TPM chip; TPM: additional add-on card for TPM function, TCG 1.2-compliant Perequisites SATA/SAS disk, OS None (use USB port) One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS* Gold qualified, redundant with two power supplies Rack kit Cable management Cooling Four fans, hot-swap Four fans, hot-swap Includes rack kit Optional cable management arm on selected models Four fans, hot-swap Four fans, hot-swap Four fans, hot-swap Includes rack kit Optional cable management arm on selected models Four fans, hot-swap Four fals, hot-sk base on doi/vio fals falling part Four fals, hot-sk base on folioticate individual falling part Four falsh benefit category Four falsh benefi	Rear ports		
Onboard Aspeed AST2300 graphics/management processor, IRMI 2.0-compliant baseboard management controller (BMC): iKVM: add-on ThinkServer Management Module Premium for iKVM functions Security chip No onboard TPM chip; TPM: additional add-on card for TPM function, TCG 1.2-compliant Prerequisites Keyboard/mouse Power supply One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS® Gold qualified, redundant with two power supplies Rack kit Cable management Cooling Co	Diagnostics Module	Supports IDM or IDM Premium on selected models; Basic: IDM LED lights indicate failing component category	Bay 10-17 are available on sixteen 2.5" disk bays model: Bay 10-17 2.5", 0.6" high, external, for disk
Prerequisites SATA/SAS disk, OS Keyboard/mouse Power supply One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS® Gold qualified, redundant with two power supplies Pour fans, hot-swap Cooling Four fans, hot-swap Rack kit Cable management Cooling Four fans, hot-swap Cooling Four fans, hot-swap Rack kit Cable management Tools Four fans, hot-swap Security Chip (selected models, see information on left) Administrator password User password Boot sequence control Boot without keyboard, mouse, diskette Software Management Tools ThinkServer EasyStartup ThinkServer EasyStartup ThinkServer EasyManage Energy Management Technology Lenovo® SmartGrid Manager ENERGY STAR Server 1.1-compliant RoHS-compliant	,	IPMI 2.0-compliant baseboard management controller (BMC); iKVM: add-on ThinkServer Management Module Premium for iKVM functions	Slot 1: half-length, full-height, PCI Express 3.0 x16 Slot 2: half-length, full-height, PCI Express 2.0 x8 (x4 elec) Slot 3: Low Profile, PCI Express 3.0 x8 (x4 elec) Slot 4-5 are available on dual processors models:
Prerequisites Keyboard/mouse Power supply None (use USB port) One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS® Gold qualified, redundant with two power supplies Rack kit Cable management Cooling		TPM: additional add-on card for TPM function, TCG 1.2-compliant	
Power supply One or two 800 watts standard, two maximum, rear access, hot-swap, 80 PLUS® Gold qualified, redundant with two power supplies Rack kit Cable management Cooling			
Rack kit Cable management Cooling Optional cable management arm on selected models Four fans, hot-swap Four fans, hot-swap Software Management Tools ThinkServer EasyStartup ThinkServer EasyManage Energy Management Technology Lenovo® SmartGrid Manager ENERGY STAR® Server 1.1-compliant RoHS-compliant	•	One or two 800 watts standard, two maximum, rear access, hot-swap,	Administrator password
ThinkServer EasyStartup ThinkServer EasyManage Energy Management Technology Lenovo® SmartGrid Manager ENERGY STAR® Server 1.1-compliant RoHS-compliant	Cable management	Optional cable management arm on selected models	Boot sequence control Boot without keyboard, mouse, diskette Serial port I/O control USB port disablement (all)
Energy Management Technology • Lenovo® SmartGrid Manager ENERGY STAR® Server 1.1-compliant RoHS-compliant			ThinkServer EasyStartup
Lenovo® SmartGrid Manager ENERGY STAR® Server 1.1-compliant RoHS-compliant			, ,
ENERGY STAR Server 1.1-compliant RoHS-compliant			
For more accessories, see O-RAL sheet			ENERGY STAR Server 1.1-compliant
			For more accessories, see O-RAL sheet